REMARKS

Reconsideration and allowance of the present application are respectfully requested.

Claims 1-17 remain pending in this application. Claims 1, 3, 4 and 10 have been amended. These claims have been amended to overcome the rejection of claims 1 and 3-9 under 35 USC 112, second paragraph. No new matter has been added.

In response to the rejection of claims 1 and 3-9 under 35 USC 112, second paragraph, the applicants have amended claims 1, 3, 4 and 10 as shown above. With respect to claim 1, submit that it would be confusing to replace the phrase "and having" at line 2 with a comma "," as suggested in the Office Action. Thus, claim 1 has been amended as shown above, notably by replacing at line 1, the word "containing" with the word "comprising" and inserting the phrase "said pigment being particles" before the word "having." Insertion of the term "particles" clarifies the antecedent basis for claim 4. The applicants submit that claim 1 is fully allowable under Section 112, second paragraph.

With regard to claim 3, this claim has been amended to better reflect the language in base claim 1 and thus provide clearer antecedent basis for "sulfate group."

With respect to the rejection of claim 4, this claim and base claim 1 have been amended to clarify antecedent basis for "particles."

With regard to the rejection of claim 11 for lack of sufficient antecedent basis, the base claim 10 has been amended as shown above to provide sufficient antecedent basis.

In view of the above, the applicants submit that all presently considered claims are fully allowable under 35 USC 112, second paragraph.

The applicants respectfully traverse the rejection of claims 1-9 and 12-17 under 35 USC 102(b) or 103(a) in view of the cited reference of Chopin et al.

This reference does not anticipate the presently claimed invention or make it obvious.

The presently claimed invention solves the problem of low opacity which occurs when the particle diameter of an anatase type titanium dioxide pigment is too small as compared with optimum particle diameter which can theoretically provide the highest opacity (see present specification at page 2, lines 9-13). Additionally, the presently claimed invention provides a titanium dioxide pigment containing an anatase type crystal having an average particle diameter of 0.2 - 0.4 μm, i.e. 200-400 nm (see, for example, present claim 1) and the resin composition containing said titanium dioxide pigment (see for example, present claim 12).

The present Office Action states that "Chopin et al. disclose an anatase titanium dioxide pigment having an average particle diameter in the range of 0.2 - 0.4 μm (col. 7, 1. 50-53)" (see Office Action, at page 4, lines 10-9 from the bottom). The applicants respectfully disagree with this statement.

Upon close scrutiny, Chopin states that "the titanium dioxide seeds used in the present invention must first of all exhibit a size of less than 8 nm, i.e., "Use is preferably made of titanium dioxide seeds exhibiting a size of between 3 and 5 nm

(emphasis added) " (see column 7, 1ines 50-53). Chopin does not disclose nor suggest an anatase titanium dioxide pigment having an average particle diameter in the range of 0.2 - 0.4 μm as recited in the presently claimed invention.

In this connection, with respect to the claims 10 and 11, the Office Action states that Chopin discloses that it is possible to precisely control the final size of the titanium dioxide particles (see Office Action, at page 6, lines 5 - 7). However, Chopin states that "...makes it possible to precisely control the final size of the titanium dioxide particles .... It is thus possible to obtain particles for which the diameter varies between 25 and 100 nm (emphasis added)" (see column 7, lines 62 - 65). The upper limit of 100 nm, which is only half of 0.2 μm, is disclosed.

Further, the object of Chopin' product is to disperse titanium dioxide particles for anti-UV agent with a size of less 100 nm (see column 1, lines 13 - 15 and claim 1 of reference) without dispersing agents (see column 1, lines 32 - 34). This product does not relate to the titanium dioxide for pigment having larger size as in the presently claimed invention. Moreover, a person of ordinary skill in the art would find no motivation in Chopin to adopt the larger size.

Accordingly, the applicants assert that the presently claimed invention is not only unanticipated under Section 102(b) in view of Chopin, but is also nowhere suggested or made obvious under Section 103(a) in view of Chopin. The presently claimed invention is fully allowable in view of the prior art.

The applicants respectfully traverse the rejection of claims 10 and 11 under 35 USC 103(a) over Chopin et al, in view of Duyvesteyn et al. These references do not make the presently claimed invention to be obvious.

The presently claimed invention has been thoroughly distinguished from

the teachings of Chopin et al. pursuant to the above discussion. The applicants submit that the teachings of Duyvesteyn et al. do not remedy the deficiencies of Chopin et al. and the present invention as recited in claims 10 and 11 are fully allowable in view of both references.

Contrary to the Office Action, the teachings of Duyvesteyn does not cure the deficiency of Chopin in teachings calcination temperature.

According to Chopin, "An important characteristic of the particles according to the invention is that they are not calcined..." (see column 4, lines 51-52). Thus, Chopin teaches that the calcination step itself should not exist.

Additionally, features of the presently claimed process is that the specific calcination treating agent specified in claim 10, comprises an aluminum compound, a potassium compound and a phosphorus compound and the amounts of these compounds, and the ratio of the potassium compound and the phosphorus compound in specific ranges. This, thus results in an anatase type titanium dioxide pigments great in particle diameter and excellent in whiteness that can be provided at a calcination temperature lower than 1000°C (see present specification at page 4, lines 2-17, and claim 10).

In stark contrast, Chopin and Duyvesteyn do not disclose or suggest the calcination treating agent recited in present claim 10.

Accordingly, the applicants submit that the present invention as recited in claims 10 and 11 are fully allowable under Section 103(a) in view of the cited references.

In view of the above, it is believed that the present application is in condition for allowance and a Notice to that effect is respectfully requested.

Respectfully submitted,

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